

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE
in its capacity as elected Office

Date of mailing (day/month/year) 10 April 2001 (10.04.01)	Applicant's or agent's file reference SK-15013-PCT
International application No. PCT/KR00/00829	Priority date (day/month/year) 04 August 1999 (04.08.99)
International filing date (day/month/year) 29 July 2000 (29.07.00)	
Applicant YANG, Seung-Gak et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
12 February 2001 (12.02.01)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Zakaria EL KHODARY
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

LEE, Young-Pil
The Cheonghwa Building
1571-18 Seocho-dong
Seocho-gu
Seoul 137-874
RÉPUBLIQUE DE CORÉE

Date of mailing (day/month/year) 14 juin 2001 (14.06.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference SK-15013-PCT	
International application No. PCT/KR00/00829	International filing date (day/month/year) 29 juillet 2000 (29.07.00)

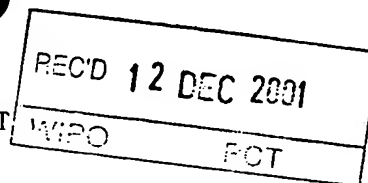
1. The following indications appeared on record concerning:									
<input type="checkbox"/> the applicant	<input type="checkbox"/> the inventor <input checked="" type="checkbox"/> the agent <input type="checkbox"/> the common representative								
Name and Address LEE, Young-Pil The Cheonghwa Building 1571-18 Seocho-dong Seocho-gu Seoul 137-073 Republic of Korea	<table border="1"> <tr> <td>State of Nationality</td> <td>State of Residence</td> </tr> <tr> <td colspan="2">Telephone No. 02 588 8585</td> </tr> <tr> <td colspan="2">Facsimile No. 02 588 8547</td> </tr> <tr> <td colspan="2">Teleprinter No.</td> </tr> </table>	State of Nationality	State of Residence	Telephone No. 02 588 8585		Facsimile No. 02 588 8547		Teleprinter No.	
State of Nationality	State of Residence								
Telephone No. 02 588 8585									
Facsimile No. 02 588 8547									
Teleprinter No.									
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:									
<input type="checkbox"/> the person <input type="checkbox"/> the name <input checked="" type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence									
Name and Address LEE, Young-Pil The Cheonghwa Building 1571-18 Seocho-dong Seocho-gu Seoul 137-874 Republic of Korea	<table border="1"> <tr> <td>State of Nationality</td> <td>State of Residence</td> </tr> <tr> <td colspan="2">Telephone No. 02 588 8585</td> </tr> <tr> <td colspan="2">Facsimile No. 02 588 8547</td> </tr> <tr> <td colspan="2">Teleprinter No.</td> </tr> </table>	State of Nationality	State of Residence	Telephone No. 02 588 8585		Facsimile No. 02 588 8547		Teleprinter No.	
State of Nationality	State of Residence								
Telephone No. 02 588 8585									
Facsimile No. 02 588 8547									
Teleprinter No.									
3. Further observations, if necessary: Change of zip code.									
4. A copy of this notification has been sent to:									
<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned								
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned								
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Anman OIU Telephone No.: (41-22) 338.83.38
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PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



11

Applicant's or agent's file reference SK-15013-PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/KR00/00829	International filing date (day/month/year) 29 JULY 2000 (29.07.2000)	Priority date (day/month/year) 04 AUGUST 1999 (04.08.1999)
International Patent Classification (IPC) or national classification and IPC IPC7 C09K 3/00		
Applicant SKC Co., Ltd. et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 3 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 12 FEBRUARY 2001 (12.02.2001)	Date of completion of this report 28 NOVEMBER 2001 (28.11.2001)
Name and mailing address of the IPEA/KR Korean Intellectual Property Office Government Complex-Daejeon, Dunsan-dong, Seo-gu, Daejeon Metropolitan City 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer CHOI, Seung Keun Telephone No. 82-42-481-5575



I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☐ the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement) under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheet _____

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed." and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item I and annexed to this report.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-14	YES
	Claims		NO
Inventive step (IS)	Claims	4,5,8-14	YES
	Claims	1-3,6,7	NO
Industrial applicability (IA)	Claims	1-14	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1 JP 2-296885

D2 JP 11-116574

D3 JP 2-39161

The subject matter of claims 2, 3, 6 and 7 relates to selective light-absorptive material containing a tetrazaporphyrin derivative, which is substituted with 1 to 3 cyclic compounds and complexed with metal ion. The compounds, according to claims 2, 3, 6 and 7, are not only structurally very close to the compounds disclosed in D1, but have the same light-absorption characteristic, as do the compounds of D1. Therefore, the subject matter of claims 2, 3, 6 and 7 does not involve an inventive step over D1.

D2 shows a halogenated tetrazaporphyrin derivative used as a dye, a pigment, photoelectric functional material and recording-and-memory material. A tetrazaporphyrin derivative described in claim 1 does not differ from the compound of D2 in both the tetrazaporphyrin ring and the substituent.

D3 discloses the compounds selected among tetrazaporphyrin derivative and derivative of metallic complex salts of tetrazaporphyrin is incorporated into a photosensitive layer but does not disclose a phenyl-substituted derivative

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
15 February 2001 (15.02.2001)

PCT

(10) International Publication Number
WO 01/10971 A1

(51) International Patent Classification⁷: C09K 3/00

(21) International Application Number: PCT/KR00/00829

(22) International Filing Date: 29 July 2000 (29.07.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

1999/31991	4 August 1999 (04.08.1999)	KR
1999/31992	4 August 1999 (04.08.1999)	KR
2000/28992	29 May 2000 (29.05.2000)	KR
2000/41426	19 July 2000 (19.07.2000)	KR

(71) Applicant (for all designated States except US): SKC CO., LTD. [KR/KR]; 633 Jeongja-dong, Jangan-gu, Suwon-city, Kyungki-do 440-301 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): YANG, Seung-Gak [KR/KR]; 195 Dongsun-dong 4-ga, Seongbuk-gu, Seoul

136-054 (KR). PARK, Jin-Bum [KR/KR]; 322-1 Topyeon-ri, Kangnae-myun, Cheongwon-gun, Chungchongbuk-do 363-890 (KR). BAE, Geun-Taek [KR/KR]; 103-605 Jugong 8-danji Apt., 527 Dujong-dong, Chonan-city, Chungchongnam-do 330-210 (KR). LEE, Ho-Chan [KR/KR]; 204-302 Wolbong Byuksan Apt., 1538 Ssangyong-dong, Chonan-city, Chungchongnam-do 330-090 (KR).

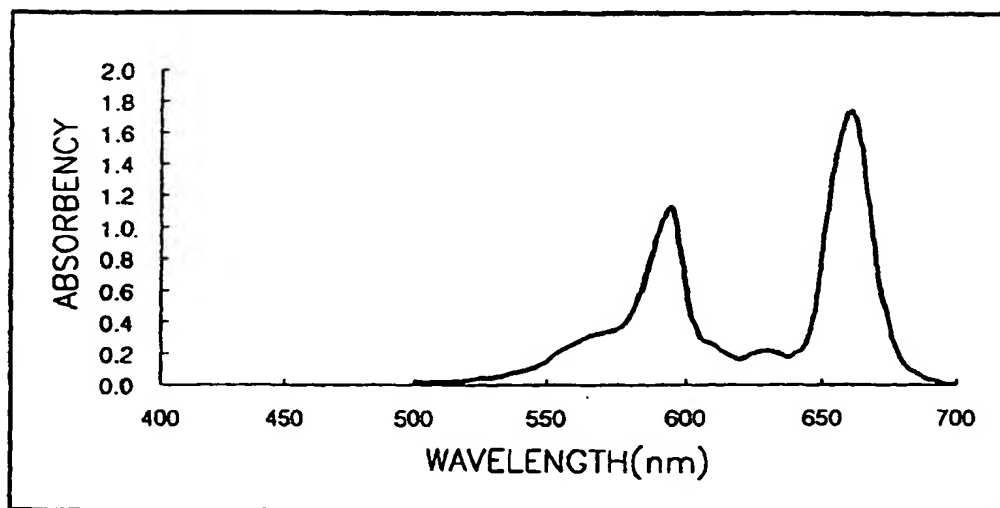
(74) Agent: LEE, Young-Pil; The Cheonghwa Building, 1571-18 Seocho-dong, Seocho-gu, Seoul 137-073 (KR).

(81) Designated States (national): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,

[Continued on next page]

(54) Title: SELECTIVELY LIGHT-ABSORPTIVE MATERIAL, COATING COMPOSITION CONTAINING THE SAME, AND FILTER MANUFACTURED USING THE COATING COMPOSITION FOR COLOR DISPLAYS



(57) Abstract: A selectively light-absorptive material, a coating composition containing the material, and a filter manufactured using the coating composition, which are for use in color displays with enhanced color purity and contrast. The selectively light-absorptive material contains a tetrazaporphyrine derivative. When the selectively light-absorptive filter manufactured using the coating composition including the selectively light-absorptive material is applied to a color display, light reflected in the display and light of the intermediate colors exclusive of the three principal colors can be absorbed, thereby enhancing color purity and contrast.

WO 01/10971 A1



IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *With international search report.*

INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR00/00829

A. CLASSIFICATION OF SUBJECT MATTER**IPC7 C09K 3/00**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 B41M 5/26, C09B 47/04, C09D 5/32, G03G 5/06

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korea patents and applications for inventions since 1975

Korea utility models and applications for utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

NPS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 11-116574 A (RICOH CO LTD) 27 APRIL 1999 see claim 2, column 15	1-7
X	JP 02-296885 A (MITSUBISHI TOYOTSU CHEM INC) 7 DECEMBER 1990 see claim 1	3
Y		1-2, 4-7
Y	JP 02-39161 A (CANON INC) 8 FEBRUARY 1990 see claim 1	1-7
A	US 4,846,551 A (OPTICAL COATING) 11 JULY 1989 see column 2 line 7-line 21	1-14
A	JP62-258402 A (TOPPAN PRINTING CO LTD) 10 NOVEMBER 1987 see claim 1	1-14

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

17 NOVEMBER 2000 (17.11.2000)

Date of mailing of the international search report

18 NOVEMBER 2000 (18.11.2000)

Name and mailing address of the ISA/KR

Korean Industrial Property Office
Government Complex-Taejon, Dunsan-dong, So-ku, Taejon
Metropolitan City 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

CHOI, Seung Keun

Telephone No. 82-42-481-5575



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR00/00829

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 11-116574 A	27. 04. 1999	None	
JP 02-296885 A	07. 12. 1990	None	
JP 02-39161 A	08. 02. 1990	None	
US 4,846,551 A	11. 07. 1989	None	
JP 62-258402 A	10. 11. 1987	None	